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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,048	08/17/2005	Guillermo Selman-Housein Sosa	976-23 PCT/US	1833

7590 01/08/2007  
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EXAMINER
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KUBELIK, ANNE R

ART UNIT	PAPER NUMBER
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1638

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	01/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/527,048

Applicant(s)

SELMAN-HOUSEIN SOSA ET AL.

Examiner

Anne R. Kubelik

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-131 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-131 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions that are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-39, 43-50, 118-123 and 125-131 drawn to a DNA vector comprising an artificial intergenic region made up of two 5' untranslated regions of plastid genes belonging to plants of different classes or divisions, and plants and cells comprising it.

Group 2, claim(s) 40-42, drawn to a DNA vector having a DNA sequence that allows repression of the transcription of the *rbcL* gene.

Group 3, claim(s) 51, drawn to a DNA vector comprising a mini-cistron.

Group 4, claim(s) 52-53, in part, and claim 54, drawn to a DNA vector encoding a *Bacillus thuringiensis* Cry protein.

Group 5, claim(s) 52-53, in part, and claim 55, drawn to a DNA vector encoding a protease inhibitor.

Group 6, claim(s) 52 and 56-57, in part, and claim 58, drawn to a DNA vector encoding glucanase.

Group 7, claim(s) 52 and 56-57, in part, and claim 59, drawn to a DNA vector encoding chitinase.

Group 8, claim(s) 52 and 56-57, in part, and claim 60, drawn to a DNA vector encoding thaumatin-like protein.

Art Unit: 1638

Group 9, claim(s) 52 and 56, in part, and claim 61, drawn to a DNA vector encoding a ribosome inactivation protein.

Group 10, claim(s) 52, in part, and claim 62-63, drawn to a DNA vector encoding choline oxidase.

Group 11, claim(s) 52 and 64-65, in part, and claim 66, drawn to a DNA vector encoding FBPase.

Group 12, claim(s) 52 and 64-65, in part, and claim 67, drawn to a DNA vector encoding PROTOX.

Group 13, claim(s) 52 and 64-65, in part, and claim 68, drawn to a DNA vector encoding RUBISCO.

Group 14, claim(s) 52 and 64-65, in part, and claim 69, drawn to a DNA vector encoding a protein involved in carbon fixation.

Group 15, claim(s) 52, in part, and claim 70, drawn to a DNA vector encoding a protein that increases post harvest conservation of plant products.

Group 16, claim(s) 52, in part, and claim 71, drawn to a DNA vector encoding a protein that improves the nutritional quality of plant products.

Group 17, claim(s) 52 and 72, in part, and claim 73, drawn to a DNA vector encoding an interferon.

Group 18, claim(s) 52 and 72, in part, and claim 74, drawn to a DNA vector encoding an interleukine.

Group 19, claim(s) 52, in part, and claim 75, drawn to a DNA vector encoding a regulatory protein for the immune response.

Art Unit: 1638

Group 20, claim(s) 52 and 76, in part, and claim 77, drawn to a DNA vector encoding insulin.

Group 21, claim(s) 52 and 76, in part, and claim 78, drawn to a DNA vector encoding growth hormone.

Group 22, claim(s) 52 and 76, in part, and claim 79, drawn to a DNA vector encoding somatotrophic hormone.

Group 23, claim(s) 52 and 76, in part, and claim 80, drawn to a DNA vector encoding gonadotropic hormone.

Group 24, claim(s) 52, in part, and claims 81-82, drawn to a DNA vector encoding EGF.

Group 25, claim(s) 52, in part, and claim 83, drawn to a DNA vector encoding a protein with hematopoietic activity.

Group 26, claim(s) 52, in part, and claim 84, drawn to a DNA vector encoding a cell receptor.

Group 27, claim(s) 52, in part, and claim 85, drawn to a DNA vector encoding a protease inhibitor.

Group 28, claim(s) 52 and 86, in part, and claim 87, drawn to a DNA vector encoding streptokinase.

Group 29, claim(s) 52 and 86, in part, and claim 88, drawn to a DNA vector encoding t-PA.

Group 30, claim(s) 52 and 89-91, in part, and claim 92, drawn to a DNA vector encoding the hepatitis B surface antigen.

Art Unit: 1638

Group 31, claim(s) 52 and 89-91, in part, and claim 93, drawn to a DNA vector encoding an hepatitis A antigen.

Group 32, claim(s) 52 and 89-91, in part, and claim 94, drawn to a DNA vector encoding an hepatitis C antigen.

Group 33, claim(s) 52 and 89-90, in part, and claim 95, drawn to a DNA vector encoding a FMDV antigen.

Group 34, claim(s) 52 and 89-90, in part, and claim 96, drawn to a DNA vector encoding an HIV antigen.

Group 35, claim(s) 52 and 89, in part, and claim 97, drawn to a DNA vector encoding a bacterial antigen.

Group 36, claim(s) 52 and 89, in part, and claim 98, drawn to a DNA vector encoding a protozoal antigen.

Group 37, claim(s) 52, in part, and claim 99, drawn to a DNA vector encoding an Ig variable region fragment.

Group 38, claim(s) 52 and 100, in part, and claim 101, drawn to a DNA vector encoding an Ig.

Group 39, claim(s) 52 and 100, in part, and claim 102, drawn to a DNA vector encoding a multimeric hormone.

Group 40, claim(s) 52 and 100, in part, and claim 103, drawn to a DNA vector encoding a multimeric vaccine antigen.

Group 41, claim(s) 52 and 100, in part, and claim 104, drawn to a DNA vector encoding a multimeric enzyme.

Art Unit: 1638

Group 42, claim(s) 52 and 100, in part, and claim 105, drawn to a DNA vector encoding a multimeric cell receptor.

Group 43, claim(s) 52, in part, and claim 106, drawn to a DNA vector encoding a biopolymer.

Group 44, claim(s) 52 and 107, in part, and claim 108, drawn to a DNA vector encoding a protease.

Group 45, claim(s) 52 and 107, in part, and claim 109, drawn to a DNA vector encoding a lipase.

Group 46, claim(s) 52 and 107, in part, and claim 110, drawn to a DNA vector encoding isomerase.

Group 47, claim(s) 52, 107 and 111, in part, and claim 112, drawn to a DNA vector encoding levansucrase.

Group 48, claim(s) 52, 107 and 111, in part, and claim 113, drawn to a DNA vector encoding invertase.

Group 49, claim(s) 52, 107 and 111, in part, and claim 114, drawn to a DNA vector encoding levanase.

Group 50, claim(s) 52, 107 and 111, in part, and claim 115, drawn to a DNA vector encoding dextranase.

Group 51, claim(s) 116, drawn to a culture of vegetable cells before transformation.

Group 52, claim(s) 117, drawn to use of kinetin.

Group 53, claim(s) 124, in part, drawn to purification of a protein that produces cells of a transplasmic plant.

Group 54, claim(s) 124, in part, drawn to use of a protein that produces cells of a transplasmic plant.

The inventions listed as Groups 1-54 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

These groups are deemed to lack unity of invention because they are not so linked to form a single general inventive concept.

Furthermore, the technical feature linking Groups 1-50 appears to be a DNA vector.

However, Blowers et al (WO 99/05265) teach plastid transformation vectors comprising a mini-cistron (Fig 3, examples 1-10). Thus, claim 51 is not novel.

Therefore, the technical feature linking the Groups is not special and the Groups are not so linked under PCT Rule 13.1.

Applicant is advised that for the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (571) 272-0801. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm.



Art Unit: 1638

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg, can be reached at (571) 272-0975.


The central fax number for official correspondence is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

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Anne Kubelik, Ph.D.  
January 3, 2007



**ANNE KUBELIK, PH.D.  
PRIMARY EXAMINER**